3A NODE 1/PMA 1 MANUAL HEATER OPERATIONS

1. <u>COMPARE SHELL TEMP(S) TO LIMITS AND POWER HEATER ON/OFF</u>

> NOTE
> For Node 1 heaters with two temperature sensors, each temperature reading should be compared to the limits for that specific sensor in order to decide whether to turn the heater on or off. If all temperature sensors in a zone have failed then sensors in adjacent zones may be used.

PCS   Node 1: TCS
| NODE1: TCS |

Note PMA 1 (Node 1) Htr[X]A(B) Temp

sel PMA 1 (Node 1 Htr 1 --- 6)(Node 1 Htr 1 --- 7) Availability
sel PMA 1 (Node 1) Htr[X]A(B) Setpoints

| PMA1(Node1) Htr[X]A(B) Setpoints |

Note PMA 1 (Node 1) Htr[X]A(B) Lower Setpt
Note PMA 1 (Node 1) Htr[X]A(B) Upper Setpt

If PMA 1 (Node 1) Htr[X]A(B) Temp < PMA 1(Node 1) Htr[X]A(B) Lower
  Setpoint

   sel PMA 1 (Node 1 Htr 1 --- 6) (Node 1 Htr 1 --- 7) Availability
   sel Htr[X]A(B) Htr Power

   | RPCM [..] Htr[X]A(B) |

   If RPC - Tripped

      √**MCC-H**

  √Close Cmd - Ena
   cmd Close
  √Position - Cl

If PMA 1 (Node 1) Htr[X]A(B) Temp > PMA 1 (Node 1) Htr[X]A(B) Upper
  Setpoint

   sel PMA 1 (Node 1 Htr 1 --- 6) (Node 1 Htr 1 --- 7) Availability
   sel Htr[X]A(B) Htr Power

   | RPCM [..] Htr[X]A(B) |

If RPC - Tripped

√**MCC-H**

√Open Cmd - Ena
cmd Open
√Position - Op

2. <u>REPEAT HEATER POWER ON/OFF CYCLES AS REQUIRED</u>
Repeat step 1 after TBD hours.

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